Response to March 31, 2006 Action

Listing of the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1.(Currently amended)

A compound having formula 1:

wherein:

R₁ is alkyl, aryl, arylalkyl, heteroaryl[[;]], heteroarylalkyl, heterocycloalkyl, arylsulfonyl, aryloxycarbonyl, alkoxyalkoxyalkyl, alkyl-S-R₇, alkyl-NH-C(=O)-R₈ or -R₉-X-R₁₀-(R₁₁)H;

wherein each of the alkyl, aryl, arylalkyl heteroaryl, heteroarylalkyl, heterocycloalkyl, arylsulfonyl, aryloxycarbonyl and alkoxyalkoxyalkyl moieties in each of the foregoing R_1 groups can be optionally substituted with up to 5 groups independently selected from the group consisting of C_1 - C_6 alkyl, OH, hydroxyalkyl, -C(=O)- R_5 , CN, aryl, alkoxycarbonyl, alkylaryl, arylalkyl, heteroaryl, S-heteroaryl optionally substituted with halogen, heteroarylalkyl optionally substituted with halogen, heterocycloalkyl optionally substituted with amino, NO₂, halogen, monohaloalkyl, dihaloalkyl, trihaloalkyl, perhaloaryl, perhaloalkylaryl, alkyl- $NR_{15}R_{16}$ and $NR_{15}R_{16}$;

or one of said alkyl, aryl, arylalkyl heteroaryl, heteroarylalkyl, heterocycloalkyl, arylsulfonyl, aryloxycarbonyl or alkoxyalkoxyalkyl moieties of one of said R₁ groups can be attached to a compound of Formula I at position R₁ thereof;

 R_3 and R_4 are independently each halogen, C_1 - C_6 alkyl, trihaloalkyl, alkoxycarbonyl, alkoxy, $NR_{15}R_{16}$, or NO_2 , wherein said C_1 - C_6 alkyl, alkoxycarbonyl, and alkoxy groups can each be optionally substituted with $NR_{15}R_{16}$;

R₅ is H, -NHNHR₆, -NHN=CH-R₆, heteroaryl or heterocycloalkyl, wherein said heteroaryl group can be optionally substituted with an aryl or heteroaryl group;

R₆ is aryl, heteroaryl, arylsulfonyl, heteroarylsulfonyl, -C(=S)-NH-aryl, -C(=S)-

NH-arylcarbonyl, -C(=S)-NH-heteroarylcarbonyl, -C(=S)-NH-alkylene-R₂₁, -C(=O)-NHaryl, -C(=O)-NH-arylcarbonyl, -C(=O)-NH-heteroarylcarbonyl or -C(=O)-NH-alkylene-R₂₁ where R₂₁ is carboxy, alkoxycarbonyl, aryl, heteroaryl, heterocycloalkyl, arylaminocarbonyl, cycloalkyl-aminocarbonyl or a saturated hydrocarbon fused ring system optionally having an aryl ring fused thereto, said ring system being optionally substituted with up to three alkyl groups on the alkyl or aryl rings thereof;

wherein any of said R₆ groups can be optionally substituted with up to 3 groups selected from NR₁₅R₁₆, alkyl, hydroxy, halogen, aryl, alkoxy, trihaloalkoxy, arylalkyloxy, NO₂, -SH, -S-alkyl, heteroarylcarbonyl, heteroaryl, alkylheteroaryl or a moiety of formula -OC₂CH₂-O-attached to adjacent atoms of said R₆ group;

R7 is heteroaryl or heterocycloalkyl;

R₈ is aryl;

R₉ and R₁₀ are each independently alkylene having from 1 to about 20 carbons;

X is $-N(R_{12})$ -, $-C(R_{13})(R_{14})$ - or O;

R₁₁ is H, heteroaryl or alkoxy, wherein said heteroaryl or alkoxy group can be optionally substituted with up to four groups independently selected from halogen, amino, trihaloalkyl, alkoxycarbonyl, and CN;

R₁₂ is H or C₁-C₆ alkyl; and

R₁₃ and R₁₄ are each independently H or C₁-C₆ alkyl,

R₁₅ is H, halogen, C₁₋₁₂ alkyl, methylcarbonyl, heterocycloalkyl, arylsulfonyl, heteroarylalkyl, aminoalkyl, arylcarbonyl, branched or straight chain polyaminoalkyl or a group of formula CH₂(CHOH)₄CH₂OH, wherein said methylcarbonyl, heterocycloalkyl, arylsulfonyl, heteroarylalkyl, aminoalkyl, arylcarbonyl and branched or straight chain polyaminoalkyl groups can be substituted by up to 3 OH groups;

R₁₆ is H, halogen, or C₁-C₆ alkyl;

or R₁₅ and R₁₆ together with the nitrogen atom to which they are attached can form a succinimido or phthalimido group or a fused ring derivative thereof, wherein said succinimido or phthalimido group or fused ring derivative thereof can be optionally substituted by up to three substituents independently selected from NO₂ and halogen;

or R_{15} and R_{16} together with the nitrogen atom to which they are attached can form a radical of a compound of Formula I wherein said radical is R^1 thereof.

2.(Canceled)

3.(Previously presented) The compound of claim 1 wherein R₃ and R₄ are each independently halogen, amino, NO₂, CN, C₁₋₆ alkoxy or C₁₋₆ alkyl optionally substituted with up to 3 halogen atoms.

4.(Previously presented) The compound of claim 1 wherein R₃ and R₄ are each independently halogen, amino, or NO₂.

5.(Previously presented) The compound of claim 1 wherein R_3 and R_4 are each independently halogen.

6.(Previously presented) The compound of claim 1 wherein R₃ and R₄ are each chlorine.

7.(Previously presented) The compound of claim 1 wherein R₁ is alkyl substituted with alkoxycarbonyl, alkyl substituted with carboxy, or aralkyl where said aryl portion of said aralkyl is phenyl, pyridinyl, or pyrimidinyl, and where said phenyl, pyridinyl, or pyrimidinyl portion of said arylalkyl group is optionally substituted with up to 5 substituents selected from halogen, monohaloalkyl, dihaloalkyl, trihaloalkyl, NO₂, alkoxycarbonyl, and alkyl.

8.(Previously presented) The compound of claim 6 wherein R₁ is alkyl substituted with alkoxycarbonyl, alkyl substituted with carboxy, or aralkyl where said aryl portion of said aralkyl is phenyl, pyridinyl, or pyrimidinyl, and where said phenyl, pyridinyl, or pyrimidinyl portion of said arylalkyl group is optionally substituted with up to 5 substituents selected from halogen, monohaloalkyl, dihaloalkyl, trihaloalkyl, NO₂, alkoxycarbonyl, and alkyl.

9.(Original) The compound of claim 7 wherein said phenyl, pyridinyl, or pyrimidinyl portion of said arylalkyl group is optionally substituted with up to 5 substituents selected from CF₃, F, Cl, NO₂, COOCH₃, I, Br, and t-butyl.

4 of 11

Response to March 31, 2006 Action

10.(Original) The compound of claim 8 wherein said phenyl, pyridinyl, or pyrimidinyl portion of said arylalkyl group is optionally substituted with up to 5 substituents selected from CF₃, F, Cl, NO₂, COOCH₃, I, Br, and t-butyl.

11.(Previously presented) The compound of claim 1 wherein said R₁ is selected from the radicals consisting of:

12.(Previously presented) The compound of claim 1 wherein R₁ is alkyl substituted with - C(=O)-R₅.

13.(Previously presented) The compound of claim 12 wherein R_5 is -NHNHR $_6$ or -NHN=CH-R $_6$.

5 of 11

14.(Original) The compound of claim 13 wherein R₅ is -NHNHR₆.

15.(Original) The compound of claim 13 wherein R₅ is -NHN=CH-R₆.

16.(Previously presented) The compound of claim 14 wherein R_6 is -C(=O)-NH-aryl, -C(=O)-NHcycloalkyl,-C(=S)-NH-aryl, arylsulfonyl, heteroarylsulfonyl, heterocycloalkyl, arylaminocarbonyl, cycloalkylaminocarbonyl, -C(=S)-NH-alkylene- R_{21} where R_{21} is heteroaryl or a saturated hydrocarbon fused ring system optionally having an aryl ring fused thereto, said ring system being optionally substituted with up to three alkyl groups on the alkyl or aryl rings thereof, wherein any of said R_6 groups can be optionally substituted with up to 3 groups selected from $NR_{15}R_{16}$, NO_2 , a moiety of formula -OC₂CH₂-O- attached to adjacent atoms of said R_6 group, aryl, C_{1-6} alkoxy, carboxy, or C_{1-6} trihaloalkoxy.

17.(Original) The compound of claim 15 wherein R_6 is aryl or heteroaryl optionally substituted with up to 3 groups selected from OH, C_{1-6} alkoxy, NO_2 , C_{1-6} trihaloalkoxy, C_{1-6} trihaloalkyl, arylalkyloxy, and a moiety of formula -OC₂CH₂-O- attached to adjacent atoms of said R_6 group.

18.(Currently amended) The compound of claim 14 wherein said R_6 is any of the radicals from the group consisting of:

19.(Previously presented): The compound of claim 15 wherein said R₆ is any of the radicals of the group consisting of:

Response to March 31, 2006 Action

20.(Original) The compound of claim 6 wherein R_1 has the formula -(CH_2)_q- L_4 where q is 0 to 6 and L_4 is aryl, heteroaryl or heterocycloalkyl, arylsulfonamino, arylcarboxyamino or -Sheteroaryl, where each of said L_4 is optionally substituted with up to three substituents selected from halogen and NO_2 .

21.(Previously presented) The compound of claim 20 wherein said L₄ is N-maleimidyl, N-succinimidyl, N-phthalimidyl, N-naphthalimidyl, N-pyromellitic diimidyl, phenyl-sulfonamidyl, phenylcarboxamidyl, N-benzopyrrolidinyl, benzimidazol-l-yl, benzimidazol-2-yl, 1,2,4-triazolyl-4-yl, or purinyl, each of said L₄ groups being optionally substituted with 1 or 2 substituents selected from halogen, trihaloalkyl, trihaloalkoxy and NO₂.

22-62.(Canceled)

63.(Previously presented) A compound of formula:

wherein:

8 of 11

R₅₂ and R₅₃ are each independently selected from H, halogen, C₁-C₆ alkyl, trihaloalkyl, alkoxycarbonyl, alkoxy;

R'₁₅ and R'₁₆ together with the nitrogen atom to which they are attached form a N-succinimidyl, N-phthalimidyl, N-maleimidyl, N-napthalimidyl, N-pyromellitic diimidyl, N-benzopyrrolidinyl or N-benzimidazo-1-yl group wherein said group can be optionally substituted by up to three substituents independently selected from NO₂ and halogen; and

z is 1 to 6.

64.(Canceled)

65. (Previously presented) The compound of claim 63 wherein z is 2 or 3.

66.(Original) The compound of claim 65 wherein R₅₂ and R₅₃ are each independently H, C_{1.6} alkyl, alkoxy optionally substituted with dialkylamino, or alkylamino.

67.(Original) The compound of claim 66 wherein R₅₂ is H.

68.(Original) The compound of claim 67 wherein R₅₃ is methyl, methoxy, alkoxy optionally substituted with dialkylamino, or alkylamino.

69.(Original) The compound of claim 67 wherein R₅₃ is OCH₃ or O(CH₂)₃N(CH₃)₂.

70.(Original) The compound of claim 66 wherein R₅₃ is H.

71.(Original) The compound of claim 70 wherein R₅₂ is methyl, methoxy, alkoxy optionally substituted with dialkylamino, or alkylamino.

72.(Original) The compound of claim 70 wherein R₅₂ is OCH₃ or O(CH₂)₃N(CH₃)₂.

73-106.(Canceled)